

REMARKS

Claims 1-19 are all the claims pending in the application.

Applicants note that a number of editorial amendments have been made to the specification and abstract for grammatical and general readability purposes. No new matter has been added.

I. Claim Rejections Under 35 U.S.C. 102

A. The Examiner has rejected claims 1, 2, 4, 5, 7, 8, 10 and 11 under 35 U.S.C. § 102(a) as being anticipated by Maruta et al (JP 11-55216).

Claim 1, as amended, recites the feature of a path detection circuit operable to acquire a delay profile based on the sums calculated by a summing circuit, and operable to detect the paths of the received signals based on the delay profile. Applicant respectfully submits that Maruta fails to disclose or suggest at least this feature of claim 1.

Maruta discloses a weighting synthesizing circuit 2 which generates and outputs a signal received by an antenna (see Abstract). The signal output by the weighting synthesizing circuit 2 is divided into a plurality of paths via delay circuits 5_2 - 5_M , whereby the outputs of the delay circuits 5_2 - 5_M are input to inversion spreading circuits 6_1 - 6_M and demodulating circuits 7_1 - 7_M (see Fig. 1 and Abstract).

As shown in Fig. 1 of Maruta, the outputs of the demodulating circuits 7_1 - 7_M are input to a synchronizer 8 and to an error generating circuit 10. The synchronizer 8 adds the outputs of the demodulating circuits and inputs the added result to a judger 9 (see Fig. 1). The judger 9 outputs a (k)th user judgment signal to the error generating circuit 10, whereby the error generating circuit 10 detects a judgment error of each path for the (k)th user judgment signal, synthesizes it, and generates one error signal (see Abstract).

Thus, while Murata discloses a synchronizer 8 and an error generating circuit 10 which receives a signal from a judger 9 so as to detect a judgment error of each path and generate one error signal, the error generating circuit 10 of Murata does not operate to acquire a delay profile based on sums calculated by a summing circuit and to detect the paths of the received signals based on the delay profile, as recited in amended claim 1. Indeed, Applicant respectfully submits that Murata does not even remotely suggest such a feature.

In view of the foregoing, Applicant submits that claim 1 is patentable over Murata, an indication of which is respectfully requested. Claims 2, 4, 5, 7, 8, 10 and 11 depend from claim 1 and are therefore considered patentable at least by virtue of their dependency.

B. The Examiner has rejected claims 13, 18 and 19 under 35 U.S.C. § 102(a) as being anticipated by Ishii et al. (JP 11205286).

Claim 13, as amended, recites the feature of a path detection circuit operable to correlate the sums calculated by a summing circuit with a spreading code, operable to acquire a delay profile based on a correlation result, and operable to detect the paths of received signals based on the delay profile. Applicant respectfully submits that Ishii fails to disclose or suggest at least this feature of claim 13.

Ishii discloses a CDMA receiver system that includes antennas 62a and 62b which supply received signals to three circuits P1-P3 (see Fig. 2). A detector 86 included in the circuits P1-P3 contains a multiplier 86c which applies amplitude weighting to an output of a complex conjugate means 86b and to an output of an adder 84 for the provision of rake synthesis at a succeeding adder 88 (see Abstract and Fig. 2). The adder 88 then applies weighting to an output of each multiplier 86c of the three paths for the rake synthesis (see Abstract).

Thus, while Ishii discloses the use of rake synthesis in which signals are gathered together from different paths (see Fig. 2), Ishii does not disclose or suggest a path detection circuit operable to acquire a delay profile based on a correlation result, and operable to detect the paths of received signals based on the delay profile, as recited in amended claim 13.

In view of the foregoing, Applicant submits that claim 13 is patentable over Ishii, an indication of which is respectfully requested.

Claim 18, as amended, recites the feature of a path detector that detects the paths of received signals based on a delay profile which is acquired based on sums of multiplication results obtained by multiplying signals received from the antennas and receive weights for individual ones of the antennas.

As noted above, Ishii discloses a receiver that utilizes rake synthesis to gather signals together from different paths. Applicant respectfully submits, however, that Ishii does not disclose or suggest a path detector that detects the paths of received signals based on a delay profile which is acquired based on sums of multiplication results obtained by multiplying signals received from the antennas and receive weights for individual ones of the antennas.

In view of the foregoing, Applicant submits that claim 18 is patentable over Ishii, an indication of which is respectfully requested.

Regarding claim 19, Applicant submits that this claim is patentable for at least similar reasons as discussed above with respect to claim 18. In particular, Applicant respectfully submits that Ishii fails to disclose or suggest the feature of a path detection method that detects the paths of received signals based on a delay profile which is acquired based on sums of multiplication results obtained by multiplying signals received from the antennas and receive

weights for individual ones of the antennas. Accordingly, Applicant submits that claim 19 is patentable over Ishii, an indication of which is respectfully requested.

II. Allowable Subject Matter

Applicant thanks the Examiner for indicating that claims 14-17 are allowed.

Applicant also thanks the Examiner for indicating that claims 3, 6, 9, and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims. Applicant has rewritten claim 3 in independent form, thereby placing this claim in condition for allowance. Claims 6, 9 and 12 depend from claim 3 and are therefore considered patentable at least by virtue of their dependency.

Applicant notes that claim 3 has been amended in a non-narrowing manner to remove the claim limitations recited therein from interpretation under 35 U.S.C. 112, sixth paragraph. Further, a number of editorial revisions have also been made to the above-noted claims in order to improve their form and to provide proper antecedent basis for the recited limitations. Applicant submits that such changes do not affect the patentability of the claims over the cited prior art, and therefore, respectfully submits that claims 3, 6, 9, 12 and 14-17 are still clearly in condition for allowance, an indication of which is respectfully requested.

III. Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited.

If any points remain in issue which the Examiner feels may best be resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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